



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector 10-A, Gandhinagar 382010

Phone : (079) 23226295

Fax : (079) 23232156

website : www.gpcb.gov.in

NCTL

28 MAR 2012

Inward No. 1109

BY R.P.A.D.

NO. GPCB/BRCH/NOC-3977/ID-28312/106058

DT: 313/12

Amendment to Consent to Establish Order issued vide letter NO: GPCB/BRCH/NOC-3977/ID: 28312/74245, DATED: 04/03/2011.

M/s. BHARUCH ECO AQUA INFRASTRUCTURE LTD.,
SURTI BHAGOL, NR. GUJARAT GAS OFFICE,
UMARWADA ROAD, ANKLESHWAR,
DIST. BHARUCH

SUB: Amendment Consent to Establish under various Environmental Acts/ Rules

REF: 1) Previously issued NOC vide letter NO: GPCB/BRCH/NOC-3977/ID: 28312/74245, DATED: 04/03/2011 under various Environmental Acts/Rules.

2) Your application letter No: BEAIL/SR.EE-GPCB/2011/Apr: 17, dated-02/04/2011.

Dear Sir,

This has reference to the NOC issued vide letter NO: GPCB/BRCH/NOC-3977/ID: 28312/74245, DATED: 04/03/2011 under the provisions of the various Environmental Act/ Rules, which stands amended as under.

1. The No Objection Certificate Order NO: GPCB/BRCH/NOC-3977/ID: 28312/74245, DATED: 04/03/2011, where in mentioned condition no. 1 is amended & shall now be read as "the quantity of the effluent shall not exceed 35 MLD in 1st Phase & 60 MLD in 2nd Phase."
2. Condition no.4 1 is amended & shall now be read as "LDO and HSD shall be utilized as fuel at rate of 500 Lit/day & 6000 Lit/day for 1050 KVA D.G. Sets."
3. Condition no. 10 & 11 is amended & shall now be read as "Collection of treated effluent from the GIDC estates of Jhagadia subsequent conveyance of the collection shall be operated & maintained by GIDC."
4. Condition no. 15 is amended & shall now be read as "The final effluent treatment collection point shall be provided with on-line monitoring instruments along with TOC, pH, TKN and flow meter actuated valve at the final sump. Furthermore a third party monitoring shall be conducted regularly."
5. Condition no. 16 is amended & shall now be read as "NCTL Ankleshwar shall provide impervious tanks/HDPE tanks/ impervious guard ponds to hold effluent for at least 24 hours in lose of maintenance of any other unforeseen circumstances."
6. Condition no. 18 is amended & shall now be read as " NCTL Ankleshwar shall have only one outlet for the discharge of its effluent and ensured that no effluent shall be discharged without requisite treatment at its member industries' end and without

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meeting with the GPCB norms. Convenient easy approach shall be provided at the outlet for ease of sampling. The unit shall not keep any bypass line or system, or loose or flexible pipe for discharge effluent outside or even within the effluent treatment plant."

7. Condition no. 31 is amended & shall now be read as "NCTL-Jhagadia shall implement the action plan for Jhagadia region prepared by Gujarat Pollution Control Board."
8. Condition no.47 & 48 shall be deleted.
9. Condition no.57 is amended & shall now be read as "All member industries must have suitable ETP and shall not discharge effluent having COD higher the 250 mg/Lit to GIDC effluent collection network leading to pumping station, NCTL-Jhagadia."
10. Condition no.58 is amended & shall now be read as" NCTL shall give break up of 35 MLD of effluent industry wise."
11. Condition no. 61 is amended & shall now be read as" The project proponent must provide online monitoring system for pH, TOC and TKN."
12. Condition no. 62 is amended & shall now be read as "All pipeline members must have online monitoring system for pH, TOC and TKN."
13. Condition no.66 is amended & shall now be read as "The total effluent generation and disposal into the pipeline of Jhagadia shall not exceed the total quantity of 35 MLD in any case in I phase."
14. Condition no. 68 the total effluent generation shall be read 35 MLD in place of 15 MLD.
15. All other conditions of NOC order issued vide letter NO: GPCB/BRCH/NOC-3977/ID: 28312/74245, DATED: 04/03/2011 shall remain unchanged.

SPECIFIC CONDITIONS:

- CTE to be granted specifically to obtain CRZ clearance.
- NCTL have to keep provisions for CETP if required in future.
- Individual units should have guard pond with a capacity to store 48 hours of effluent and NCTL to have adequate capacity guard pond too.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD


(R.G.SHAH)

SR. ENVIRONMENTAL ENGINEER



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Paryavaran Bhavan

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CONSENT TO ESTABLISH (NOC)

NO.GPCB/BRCH/NOC-3977/ID-28312/ 34245

4 MAR 2011



To,

M/s. Bharuch Eco Aqua Infrastructure Ltd.,
Surati Bhagol, Nr.Gujarat Gas Office,
Umarwada Road,
Ankleshwar, Dist.: Bharuch.

Sub. : Consent to Establish (NOC) under Section 25 of Water Act 1974 and Section 21 of Air Act 1981.

Ref.: Your Application No. NIL, dated 03/06/2010

Sir,

Without prejudice to the powers of this Board under the Water (Prevention and Control of Pollution) Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986 and without reducing your responsibilities under the said Acts in any way, this is to inform you that this Board grants **Consent to Establish (NOC)** for collection of treated effluent from the GIDC Estate of Jhaghadia, conveyance of the collected effluent for the discharge of effluent into deep sea through a marine outfall subject of the following conditions.

The CTE No.39365 and Validity period of the under will be 02/06/2015.

CONDITIONS UNDER WATER ACT 1974:

1. The quantity of the effluent shall not exceed 15 MLD.
2. The treated effluent conforming to the standards shall be discharged into deep sea through an underground on shore pipeline that shall be connected to existing pipeline for discharge of effluent.
3. The Industrial effluent shall conform to the following standards.

PARAMETERS	PERMISSIBLE LIMIT
pH	5.5 to 9
Temperature	45° C at the point of discharge

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Colour & odour	All efforts shall be made to remove colour & unpleasant odour as far as practicable
Suspended Solids	100 mg/l
Particulate size of suspended solids	Floatable Solids max, 3 mm Settleable solids max, 850 microns 20 mg/l
Oil and Grease	10 mg/l
Fluorides	15 mg/l
Sulphides	5 mg/l
Pesticides	Absent
Ammonical Nitrogen	50 mg/l
Total Kjeldahi nitrogen	100 mg/l
Free ammonia (as NH ₃)	5 mg/l
Copper	3 mg/l
Zinc	15 mg/l
BOD (5 days at 20 °C)	100 mg/l
COD	250 mg/l
Arsenic	0.2 mg/l
Mercury	0.01 mg/l
Lead	1 mg/l
Cadmium	2 mg/l
Hexavalent Chromium (Cr + 6)	1 mg/l
Total Chromium (as Cr)	2 mg/l
Nickel	5 mg/l
Cyanide (as CN)	0.2 mg/l
Phenolic Compounds (as C ₆ H ₅ OH)	5 mg/l
Selenium (as Se)	0.05 mg/l
Manganese (as Mn)	2 mg/l
Iron (as Fe)	3 mg/l
Vanadium (as V)	0.2 mg/l
Nitrate Nitrogen	20 mg/l
Bio-assay test	90 % Survival of fish after 96 hours in 100 % effluent.

4. LDO & HSD shall be utilized as fuel at rate of 100 lits/day & 1600 lits/day DG sets.
5. There shall be no process emission from the treatment process as well as any other ancillary process.
6. Stack monitoring facilities like port hole, platform/ladder etc., shall be provided with stacks / vents chimney in order to facilitate sampling of gases being emitted into the atmosphere.
7. Ambient air quality within the premises shall conform to the following standards :

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PARAMETERS	PERMISSIBLE LIMIT
PM 10	100 mg/nm ³
PM 2.5	60 mg/nm ³
SO ₂	80 mg/nm ³
NO _x	80 mg/nm ³
HCL	200 mg/nm ³
CL ₂	100 mg/nm ³
Ammonia BEAIL	850 mg/nm ³
Hydrocarbon	160 mg/nm ³
H ₂ S	500 mg/nm ³

8. In order to enable the Board to perform its functions of ascertaining the standards of effluent laid down by it for the discharge of the effluent under the condition no.4 of this order are complied with by the members while causing discharge of effluent, the applicant shall have to submit every month the analysis report of the samples of effluent got collected and analyzed by one of the laboratories recognized by the State Board.
9. BEAIL Ankleshwar shall be totally responsible for collection of treated effluent from the GIDC estates of Jhagadia & subsequent conveyance of the collected effluent to deep sea.
10. Collection of treated effluent from the GIDC estates of Jhagadia subsequent conveyance of the collected shall be through underground pipeline.
11. Regular maintenance of the underground pipeline shall be carried out to avoid any spillage or leakage during conveyance of the effluent.
12. BEAIL Ankleshwar shall instruct & make sure that every member shall make storage facilities to store the effluent for at least 48 hours in an impervious acid proof brick lining tank/HDPE tank.
13. BEAIL Ankleshwar shall instruct & make sure that every member provides online pH meter with recorder & magnetic flow meters for flow measurement of treated waste water.
14. Bharuch Eco-Aqua infrastructure Limited shall constitute a monitoring committee for monitoring of the effluent discharged by its members in the GIDC underground drainage system.
15. The Final effluent treatment collection point shall be provided with on-line monitoring instruments alongwith SCADA system & pH actuated valve at the final sump. Furthermore a third party monitoring shall be conducted regularly.



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16. BEAIL Ankleshwar shall provide impervious tanks/HDPE tanks /impervious guard ponds to hold effluent for at least 48 hours in lose of maintenance of any other unforeseen circumstances.
17. BEAIL Ankleshwar shall inform immediately to the GPCB regarding the termination/suspension of the membership of Pipelines of their member unit, if any.
18. BEAIL Ankleshwar shall have only one outlet for the discharge of its effluent and no effluent shall be discharged without requisite treatment and without meeting with the GPCB norms. Convenient easy approach shall be provided at the outlet for ease of sampling. The unit shall not keep any bypass line or system, or loose or flexible pipe for discharge effluent outside or even within the effluent treatment plant.
19. The ground water quality around the impervious guard ponds shall be monitored regularly & data shall be submitted to the Board once in six months and shall also comply with the instruction of GPCB in case of deterioration.
20. Handling manufacturing, storage and transport of hazardous chemicals shall be in accordance with the manufacture, storage and import of Hazardous Chemicals Rules, 2008.
21. Transportation of effluent, solid waste or any other goods pertaining to treatment activities shall be carried out as per central Motor Vehicle Rule-2008.
22. The hazardous wastes shall be handled as per the Hazardous Waste (Management and Handling) Rules of the Environment (Protection) Act, 2008.
23. On site and off site emergency plan as required under the Rules 13 & 14 of handling, Manufacturing, storage and import of the Hazardous Chemicals Rules, 1989 shall be prepared and approval from the Board shall be obtained.
24. Periodic medical checkup of the workers shall be done and records maintained as a measure and approval from the Board shall be obtained.
25. BEAIL Ankleshwar shall provide state of the art composite samplers & set up testing laboratory facilities for collection, analysis of samples under the supervision of competent technical persons who shall report to the chief executive.
26. The Environmental Management unit / Cell shall be setup to ensure implementation and monitoring of environmental safe guards and other conditions stipulated by statutory authorizes. The Environment Management Unit/Cell shall directly report to the Chief Executive of the organization and shall work as a focal point for Internalizing environmental issues. These Cells/Units shall also coordinate the exercise of the environmental audit and preparation of the environmental statements.



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27. The Environmental audit shall be carried out half yearly and the environmental statements pertaining to the previous year shall be submitted to the GPCB latest by 30th September every year, through schedule-I auditor only.
28. Storm water shall not be mixed with the industrial effluent. Disposal system for storm water shall be provided separately.
29. Good housekeeping shall be maintained within the individual units premises and along the pipeline. All pipes, valves and drains shall be leak proof. Floor washing shall be admitted in to the effluent collection system for subsequent treatment and disposal.
30. BEAIL, shall intimate the occurrence of any accident, event resulting in discharge of poisonous, noxious or polluting matter or the likely hood of the same into a stream or well to the Regional Office under the intimation to the Member Secretary in accordance with the Section 31(1) of the Water Act.
31. Bhaurch Eco-Aqua Infrastructure Limited shall implement the Action Plan for Ankleshwar region prepared by Gujarat Pollution Control Board.
32. The pipeline to be laid shall comply with all seismic design parameters based on the guidelines for the seismic design of pipelines systems. The must be complied in right perspective & true spirit.
33. The impact during the pipeline phase [Mainly trenching] as well as the impact during the operational on the marine ecology of the Gulf shall be minimal.
34. The effluent release shall be through an adequately, designed multiport submerged diffuser to achieve characteristic dilution in deep sea.
35. The onshore pipeline shall be adequately buried to a safer depth after making a trench along with proposed route. The trench shall be back filed later.
36. Internationally accepted codes and practices shall be followed through proper inspection, frequent evaluation and intensive testing of all critical components of the pipeline system, similarly, the vulnerable units such as flanges, couplings, joints etc shall be rigorously tested and certified for their reliability and safety over the design life of the pipeline.
37. Due care shall be taken to minimize damage to marine ecology due to improper design, lack of maintenance, faulty operation and release into shallow waters due to unforeseen accidents.
38. The entire pipeline shall be protected from external corrosion.
39. Pretreatment to the pipes such as coating, concreting etc. and other fabrication jobs shall be undertaken in a yard on land located sufficiently away from the CRZ and the

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transfer of materials to the site shall be through a predecided corridor. Similarly, the movement of construction barges, machinery etc shall be restricted to the predecided operational area. However, the region shall not be crowded with too many vessels and construction machinery to avoid accidents and subsequent spillages of materials and fuel.

40. Temporary colonies of the work force involved in the pipe laying phase shall be established sufficiently away from HTL and proper sanitation including toilets and bathrooms shall be provided to the inhabitants to prevent abuse of the intertidal area.
41. After completion of the job work, the intertidal and supratidal area shall be restored to their original contours after the pipe-laying activities are completed. General clean-up along the corridor, adjacent area and intertidal and subtidal regions shall be taken up and extraneous materials such as drums, sacks, metal scrap, topas, excess sediment make shift huts and cabinet shall have to be cleared from the site.
42. Training for work safety and efficiency shall be imparted to the operations personnel for day-to-day operations as well as handling emergency situations.
43. It shall be ensured that valves, pumps, sub-sea pipeline, MOF system etc are periodically inspected for their integrity and to guarantee their proper functioning. Accurate records of all Inspections, unusual findings, actions taken etc shall be strictly maintained as a part of the overall record system.
44. A comprehensive marine and estuarine quality monitoring programme shall be implemented.
45. Pump station, seafloor stability, navigational aids, pipelines, diffusers, valves etc shall be regularly inspected as per standard codes and practices. Records of all inspections, unusual findings, actions taken etc shall be maintained properly.
46. The efficiency of the marine outfall (diffuser) shall be ascertained periodically through tracer studies. The efficiency of the diffuser shall be ascertained regularly alongwith cleaning of the diffusers & port openings for biofoulers and sediment that might settle inside.
47. For efficient operation of pipeline supervisory control and data acquisition, (SCADA) shall be employed to facilitate instant data acquisition, visual display and remote control. These supervisory systems shall also facilitate continuous monitoring of various parameters like pressure, temperature leakage detection and automatic/remote shut down of the valves in case of emergency.



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48. Control rooms equipped with SCADA computers, wireless system, telephone system emergency vehicle, shall be provided. The control room will be manned for 24 hours round the clock.
49. Isolation valves shall be provided on the pipeline for better monitoring and control of flow operation.
50. Necessary clearances for the adequacy & safety measures shall be obtained from the concerned authority.
51. BEAIL, shall comply with the provisions of all the laws of land including safety, disaster management.
52. Bharuch Eco-Aqua Infrastructure Limited shall submit regular progress reports to the Gujarat Pollution Control Board and other concerned authorities regarding construction, progress, commissioning and operation of the pipeline.
53. The applicant shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under the Water Cess Act-1977.
54. In case of change of ownership/management the name and address of the new owners/partners/directors/proprietor shall immediately be intimated to the Board.
55. The applicant also comply with the General conditions as per Annexure – I attached herewith (No.1 to 38) (whichever applicable).
56. The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gaseous emission or sewage waste from the proposed industrial plant. The applicant is required to make applications to this Board for this purpose in the prescribed forms under the provision of the Water Act-1974, the Air Act -1981 and the Environment (Protection) Act-1986.
57. All members, having effluent discharge ETP wherein they shall meet the standard of 250 mg/l for COD and other applicable standards for new pipeline in FETP & BEAIL shall not pump effluent having COD higher the 250 mg/l.
58. BEAIL shall submit drawing of route of pipeline.
59. BEAIL shall give break up of 15 KL of effluent industry wise.
60. The project proponent must submit feasibility report including study for 75 MLD with details of pipeline material.
61. The project proponent must provide online monitoring system for pH, TOC and ammonical nitrogen.



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62. All pipeline members must have online monitoring system for Ph, TOC and ammonical nitrogen.
63. The case may be taken up with CPCB of CCA for capacity enhancement.
64. They shall study and submit about futuristic load.
65. All members shall have only one authorized outlet over the ground with full access from outside the premises. as per design approved by BEAIL..
66. The total effluent generation and disposal into the pipeline of Jhagadia shall not exceed the total quantity of 15 MLD in any case.
67. The expert opinion regarding design area shall be obtained by GIDC to determine the exact capacity of the off-shore portion of the existing BEAIL pipeline and to work out the modalities to connect these two pipelines.
68. The GPCB shall consider and issue the consent to establish in Jhagadia area till the total effluent generation reaches to 15 MLD for which the data shall be maintained by GIDC and GPCB.
69. The zero discharge units coming up in Jhagadia shall in no case be given any kind of outlets into GIDC drain even for their domestic discharge, which they will have to treat and reuse within their premise or shall have to dispose of through any other appropriate and approved methods. The GIDC in such case shall ensure that no outlet is given to such units; and BEAIL shall strictly monitor and report to GPCB for this matter.

For and on behalf of
Gujarat Pollution Control Board
Yours faithfully,

(R.G.Shah)
Sr.Environment Engineer

NO.GPCB/BRCH/NOC-3977/ID-28312/

Issued to :
M/s Bharuch Eco-Aqua Infrastructure Limited
Plot No.618-619
GIDC Estate
Ankleshwar-393002, Dist : Bharuch.